



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/829,125

04/20/2004

Harold L. Longaker

TRMB-1395

6493

70409

7590

04/02/2009

TRIMBLE NAVIGATION LIMITED C/O WAGNER BLECHER
123 WESTRIDGE DRIVE
WATSONVILLE, CA 95076

EXAMINER

TRINH, TAN H

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

04/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/829,125	Applicant(s) LONGAKER ET AL.	
	Examiner TAN TRINH	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12-22-2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 24-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 24-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 24-32 and 33-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chawla (U.S. Pub. No. 2002/0142788) in view of Dennison (U.S. Pub. 2008/0014965) further in view of Larsson (U.S. Patent No. 7,295,855).

Regarding claims 1, 24 and 33, Chawla teaches a method for geofencing (controlling) mobile transmissions (see fig.2-4), comprising: determining a geographic location (coverage service area) of a mobile transmitter (see fig. 2 and 4, pages 1-3, sections [0011-0012, 0025-0027]); determining a geographic interference contour (100) of the mobile transmitter that is operating over a specific frequency at geographic location (see fig. 2, page 2, section [0013]). In this case, the reuse the same or adjacent frequency channels, that is can be the specific frequency. Determining a neighboring service contour that is associated with an FCC license to operate over a specific channel that includes the specific frequency (see fig. 2, page 3, sections [0025, 0027] and page 9-10, section [0077-81]); and controlling transmissions from the mobile transmitter in order to comply with FCC regulations (see fig. 4, page 10, sections [0081-0086]). In this case, Chawla teaches neighboring service is showed on the neighbor lists. And the transmission power can be determined for each measurement location in the service area. It is possible for a wireless terminal to transmit at a fixed power, such as 0.6 W in conventional

Art Unit: 2618

portable cellular telephones. However, also in conventional systems, such as those conforming to the previously mentioned TIA IS-136 standard, Since the system meet the TIA IS-136 standard, that is obvious to comply with FCC regulations (see page 10 section [0079 and 0081]). But Chawla does not mention the geographic interference contour and the neighboring service contour overlap, and controlling transmissions from the mobile transmitter.

However, Dennison teaches the geographic interference contour and the neighboring service contour overlap and controlling transmissions to the mobile unit which allows for better signal strength out at borders (see fig. 3-5A-B, 14-16, page 3, sections [0019-0023], page 5, sections [0051-0052], and page 8, section [0094]); and

Larsson teaches controlling transmissions from the mobile station (702) (see fig. 1, 5A and 7, col. 1, lines 6-18, col. 2, lines 11-41, and col. 7, lines 33-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Chawla and Dennison with Larsson, in order to provides the wireless communication system with power control bit generator to send power control bit to mobile station for controlling transmissions power of the mobile transmitter (see suggested by Larsson on col. 7, lines 39-44).

Regarding claims 2, 25 and 36, Chawla teaches determining a neighboring service contour (service area) comprises: accessing a database comprising geographic locations of the neighboring service contour (fig. 4, and tables 7-8, page 9-10, sections [0077-0085]). In this case, the C/I ratio value of location service area on table measure is database of the operation.

Art Unit: 2618

Regarding claims 3, 26 and 37, Larsson teaches controlling transmit power of transmissions from the mobile transmitter to avoid interference with service provided under the FCC license in a geographic area defined by the neighboring service contour (see fig. 1, 5A and 7, col. 1, lines 6-18, col. 2, lines 11-41, and col. 7, lines 33-54), and (see rejection claim 1 above for neighboring service).

Regarding claims 4, 27 and 38, Chawla teaches the service comprises transmission of paging signals (see page 3, section [0028]). In this case, the wireless terminal responds the page. That is the service comprises transmission of paging signals.

Regarding claims 5, 28 and 39, Chawla teaches the service comprises customer receipt of the transmission of paging signals (see page 3, section [0028]). In this case, the wireless terminal responds the page. That is the service comprises customer receipt of the transmission of paging signals, than responding to the page.

Regarding claims 7, 30 and 41, Chawla teaches the controlling transmissions further comprises: altering parameters affecting the transmissions (see page 10, section [0082]). In this case, the altering parameters affecting the transmissions can be path loss or the location is close to base station.

Regarding claims 8, 31 and 42, Chawla teaches the controlling transmissions further comprises: limiting transmissions from the mobile transmitter to specific periods of time that do

Art Unit: 2618

not interfere with transmissions of signals associated with service provided under the FCC license in an area defined by the neighboring service contour (see page 10, sections [0082-0084]). In this case, the mobile transmitter to specific periods of time that do not interfere when mobile station is transmitting minimum transmission power, or the location is not close to base station.

Regarding claims 9 and 32, Chawla teaches a service provider controlling the mobile transmitter and a holder of the FCC license are the same entity (see fig. 1, page 1, section [0003-0004]). In this case, the service provider and Base station, MTSO holder of the FCC license.

Regarding claim 34, Chawla teaches the neighboring service contour is associated with an FCC license to operate over a specific channel that includes the specific frequency. (see fig. 2, page 2, section [0013]). In this case, the reuse the same or adjacent channels, that is can be the specific frequency specific channel. (Also see U.S. Patent No. 5,752,197 for specific channel that includes the specific frequency).

Regarding claim 35, this is well known in the art in U.S. FCC rule and regulation, the controlling transmissions is performed in order to comply with FCC regulations.

3. Claims 6, 10-15, 29 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chawla (U.S. Pub. No. 2002/0142788) in view of Dennison (U.S. Pub. 2008/0014965)

Art Unit: 2618

further in view of Larsson (U.S. Patent No. 7,295,855) further in view of Bromham (U.S. pub. No. 2003/0119445).

Regarding claim 10, Chawla teaches a method for geofencing (controlling) mobile transmissions (see fig.2-4), comprising: determining a geographic location (coverage service area) of a mobile transmitter (see fig. 2 and 4, pages 1-3, sections [0011-0012, 0025-0027]); determining a geographic interference contour (100) of the mobile transmitter that is operating over a specific frequency at the geographic location (see fig. 2, page 2, section [0013]). In this case, the reuse the same or adjacent frequency channels, that is can be the specific frequency. determining a neighboring service contour that is associated with an FCC license to operate over a specific channel that includes the specific frequency (see fig. 2, page 3, sections [0025, 0027] and page 9-10, section [0077-81]). But Chawla does not mention the geographic interference contour and the neighboring service contour overlap, and controlling transmissions from the mobile transmitter, or disabling transmissions from the mobile transmitter.

However, Dennison teaches the geographic interference contour and the neighboring service contour overlap and controlling transmissions to the mobile unit which allows for better signal strength out at borders (see fig. 3-5A-B, 14-16, page 3, sections [0019-0023], page 5, sections [0051-0052], and page 8, section [0094]); and

Larsson teaches controlling transmissions from the mobile station (702) (see fig. 1, 5A and 7, col. 1, lines 6-18, col. 2, lines 11-41, and col. 7, lines 33-54).

However, Bromham teaches disabling transmissions from the mobile transmitter (10) (see fig. 8-9, disable transmitter 85, page 4, section [0062]).

Art Unit: 2618

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above combination of teaching of Chawla, Dennison and Larsson with Bromham, in order to minimize interference with other service contour (see suggested by Bromham on page 4, section [0062]).

Regarding claim 11, Bromham teaches enabling transmissions from the mobile transmitter when the geographic interference contour and the neighboring service contour do not overlap (see fig. 8-9, page 4, section [0062]). In this case, the radio (mobile transmitter) can enable with automatically being transmitting information to present the presence and location of the group when the neighboring service contour do not overlap.

Regarding claim 12, Chawla teaches the mobile transmitter comprises a mobile pager transmitter (see page 3, section [0028]). In this case, the wireless terminal responds the page. That is a mobile pager transmitter.

Regarding claim 13, Chawla teaches determining a neighboring service contour (service area) comprises: accessing a database comprising geographic locations of the neighboring service contour (fig. 4, and tables 7-8, page 9-10, sections [0077-0085]). In this case, the C/I ratio value of location service area on table measure is database of the operation.

Art Unit: 2618

Regarding claim 14, Dennison teaches the neighboring service contour defines a service area (see fig. 3-5A-B, 14-16, page 3, sections [0019-0023], page 5, sections [0051-0052], and page 8, section [0094]);

Regarding claim 15, Chawla teaches the service contour defines a basic economic area (BEA) (see fig. 2, page 3, section [0025]). In this case, the service area as the airport, shopping malls office building can defines a basic economic area.

Regarding claims 6, 29 and 40, Chawla teaches the controlling transmissions (see fig. 2 and 4, pages 1-3, sections [0011-0012, 0025-0027] and page 10, sections [0081-0084]). And Larsson teaches controlling transmissions from the mobile station (702) (see fig. 1, 5A and 7, col. 1, lines 6-18, col. 2, lines 11-41, and col. 7, lines 33-54). But Chawla or Larsson does not mention disabling transmissions from the mobile transmitter when the geographic interference area and the neighboring service contour overlap; and enabling transmissions from the mobile transmitter when the geographic interference area and the neighboring service contour do not overlap.

However, Bromham teaches disabling transmissions from the mobile transmitter (10) when the geographic interference area and the neighboring service contour overlap (see fig. 8-9, disable transmitter 85, page 4, section [0062]), and enabling transmissions from the mobile transmitter when the geographic interference area and the neighboring service contour do not overlap (see fig. 8-9, page 4, section [0062]). In this case, the radio (mobile transmitter) can

Art Unit: 2618

enable with automatically being transmitting information to present the presence and location of the group when the neighboring service contour do not overlap.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above combination of the teaching of Chawla, Dennison and Larsson with Bromham, in order to minimize interference with other service contour (see suggested by Bromham on page 4, section [0062]).

Response to Arguments

4. Applicant's arguments with respect to claims 1-15, 24-42 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to the Customer Service Window (now located at the **Randolph Building, 401 Dulany Street, Alexandria, VA 22314**).*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

Art Unit: 2618

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh
Division 2618
March 29, 2009

/TAN TRINH/
Primary Examiner, Art Unit 2618